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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WILDER, PETER C

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/882,939

Applicant(s)

CUI ET AL.

Examiner

Peter C. Wilder

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/05/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-27, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 7 second paragraph, filed 9/05/2006, with respect to claims 1, 11, and 24 have been fully considered and are persuasive. The previous rejection of the claims has been withdrawn.

Applicant's arguments with respect to claims 19-23 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues on page 9 that Auyeung fails to teach a silence description frame filer and is thus not obvious.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-7, 10, 11, 14, 15, 17, 18, 24-27, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179).

Referring to claim 1, Iyengar teaches, a method comprising,
counting an untransmitted frame to determine a count of silence frames (Column 3 lines 1-22);

determining a silence frame that includes the count of silence frames (Column 3 lines 1-22), wherein the silence description frame has a size equivalent to the size of an active frame;

and storing the silence description frame (Column 3 lines 1-22 and Figure 4).

Iyengar fails to teach wherein the silence description frame has a size equivalent to the size of an active frame.

In an analogous art Virtanen teaches wherein the silence description frame has a size equivalent to the size of an active frame (Column 2 lines 16-29).

At the time the invention was made it would have been obvious for one skilled in the art to modify the silence frame counting function/device of Iyengar using the same frame size function/device of Virtanen for the purpose of making the system processing simpler since no special frame sizes have to be accommodated for.

Referring to claim 2, Iyengar teaches the method further comprising: receiving the active frame; and storing the active frame (Column 3 lines 1-23).

Referring to claim 4, Iyengar teaches the method further comprising receiving a packet describing comfortable noise (Column 5 lines 50-67).

Referring to claim 5, Iyengar teaches wherein said counting an untransmitted frame comprises determining the untransmitted frame represents a silence frame (Column 3 lines 1-23).

Referring to claim 6, Iyengar teaches wherein said counting an untransmitted frame comprises determining a sequence of frames comprises a silence frame (Column 3 lines 1-23).

Referring to claim 7, Iyengar teaches wherein said determining a silence description frame comprises determining a pattern to demarcate the silence description frame (Column 3 lines 1-23).

Regarding claim 10, Iyengar teaches wherein said storing the silence description frame comprises storing the silence description frame adjacent to the active frame (Column 3 lines 1-23).

Regarding claim 11, Iyengar teaches an apparatus, comprising:
a network interface (Figure 4 teaches real-time speech being input); and
a silence description frame filer coupled to said network interface to determine a count of silence frames (Column 3 lines 1-23); and
a data storage device coupled to said silence description frame filer to store a silence description frame (Figure 4 and Column 3 lines 1-23).
Iyengar fails to teach wherein the silence description frame has a size equivalent to the size of an active frame.

In an analogous art Virtanen teaches wherein the silence description frame has a size equivalent to the size of an active frame (Column 2 lines 16-29).

At the time the invention was made it would have been obvious for one skilled in the art to modify the silence frame counting function/device of Iyengar using the same frame size function/device of Virtanen for the purpose of making the system processing simpler since no special frame sizes have to be accommodated for.

Referring to claim 14, depending on claim 11, Iyengar teaches said silence description frame filer comprises a microprocessor coupled to said data storage device (Figure 4 teaches a DSP (Column 1 line 62-67 and Column 2 lines 1-6) connected to memory 304)

Referring to claim 15, depending on claim 11, Iyengar teaches said silence description frame filer comprises a microprocessor to count an untransmitted frame (Column 3 lines 1-23).

Referring to claim 17, depending on claim 11, Iyengar teaches said storage device comprises a data storage controller coupled to said silence description frame filer (Figure 4 teaches a storage device and the DSP/processor and Column 3 lines 1-23 teach how silence frames are controlled and stored in the memory).

Referring to claim 18, depending on claim 11, Iyengar teaches said data storage device comprises a memory device coupled to said silence description frame filer (Figure 4 teaches memory coupled to the DSP/filer).

Referring to claim 24, see the rejection of claim 1, and Iyengar teaches in Figure 4 a DSP which is a type of processor and a processor inherently requires computer program to function.

Referring to claim 25, depending on claim 24, see the rejection of claim 2.

Referring to claim 26, depending on claim 24, see the rejection of claim 5.

Referring to claim 27, depending on claim 24, see the rejection of claim 7.

Referring to claim 30, depending on claim 24, see the rejection of claim 10.

Claims 3, 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179) further in view of Judge (U.S. 6718298 B1).

Referring to claim 3, Iyengar and Virtanen fail to teach the method further comprising decoding a file comprising an active frame and the silence description frame.

In an analogous art Judge teaches decoding a file comprising an active frame and the silence description frame (Column 4 lines 37-63).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined functions/devices of Iyengar and Virtanen using the decoding of active and silence description frames function/device of Judge for the purpose of on playback to provide as output speech signals derived from the stored speech frames and, in dependence upon the stored on or more silence frames, comfort noise from the comfort noise generator for a duration represented by the stored data.

Referring to claim 12, depending on claim 11, see the rejection of claim 3.

Referring to claim 13, depending on claim 11, Iyengar and Virtanen fail to teach wherein said silence description frame filer comprises the microprocessor to determine a silence description frame.

In an analogous art Judge teaches wherein said silence description frame filer comprises the microprocessor to determine a silence description frame (See Fig. 1 Microcontroller 117, Col. 4 lines 9-28).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined functions/devices of Iyengar and Virtanen using the

packet switching interface function/device of Judge for the purpose of allowing signals to be communicated over different mediums.

Referring to claim 16, Iyengar and Virtanen fail to teach wherein said silence description frame filer comprises a microprocessor to determine the silence description frame.

In an analogous art Judge teaches wherein said silence description frame filer comprises a microprocessor to determine the silence description frame (See Fig. 1 Microcontroller 117, Col. 4 lines 9-28).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined functions/devices of Iyengar and Virtanen using the microprocessor function/device of Judge for the purpose of on playback to provide as output speech signals derived from the stored speech frames and, in dependence upon the stored on or more silence frames, comfort noise from the comfort noise generator for a duration represented by the stored data.

Claims 8 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179) further in view of Bruhn (U.S. 6347081 B1).

Referring to claim 8, depending on claim 1, Iyengar and Virtanen fail to teach wherein said determining a silence description frame comprises determining a frame to decode as an invalid frame.

In an analogous art Bruhn teaches wherein said determining a silence description frame comprises determining a frame to decode as an invalid frame (Column 4 lines 44-63 teach decoding an the most error free SID frame thus some frames to decode are invalid).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined functions/devices of Iyengar and Virtanen using the invalid frame determining means of Bruhn for the purpose of having the most error free decoded frame.

Referring to claim 29, depending on claim 24, see the rejection of claim 8.

Claims 19, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179) further in view of Yoshikawa (U.S. 5241535).

Referring to claim 19, Iyengar teaches, a method comprising, counting an untransmitted frame to determine a count of silence frames (Column 3 lines 1-22);

determining a silence frame that includes the count of silence frames (Column 3 lines 1-22), wherein the silence description frame has a size equivalent to the size of an active frame;

and storing the silence description frame (Column 3 lines 1-22 and Figure 4).

Iyengar fails to teach a variable-size packet transmitter;

wherein the silence description frame has a size equivalent to the size of an active frame.

In an analogous art Virtanen teaches wherein the silence description frame has a size equivalent to the size of an active frame (Column 2 lines 16-29).

At the time the invention was made it would have been obvious for one skilled in the art to modify the silence frame counting function/device of Iyengar using the same frame size function/device of Virtanen for the purpose of making the system processing simpler since no special frame sizes have to be accommodated for.

Iyengar and Virtanen fail to teach a variable-size packet transmitter.

In an analogous art Yoshikawa teaches a variable-size packet transmitter (Column 8 lines 66-67 and Column 9 lines 1-5).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined systems of Iyengar and Virtanen using the variable packet size transmitter system of Yoshikawa for the purpose of effective encoding processing useful for stabilizing the quality of the decoded signal on a receiver side (Column 4 lines 49-53 and lines 60-67 and Column 5 lines 1-9, Yoshikawa).

Referring to claim 21, depending on claim 19, Virtanen teaches a microprocessor to encode active audio in a fixed-size packet (Column 2 lines 16-29 and Figure 1 teaches the components that process/encode the audio data).

Regarding claim 23, depending on claim 19, lyengar teaches wherein said silence description frame filer comprises microprocessor to store a silence description frame (Column 3 lines 1-22, Figure 4 and Column 1 lines 62-67).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over lyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179) further in view of Yoshikawa (U.S. 5241535) further in view of Walker et al. (US 5890109).

Regarding claim 20, depending on claim 19, lyengar, Virtanen, and Yoshikawa fail to teach a decoder coupled to an output device.

In an analogous art Walker teaches a decoder coupled to an output device (Figure 3 elements 116, 112, and 110).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined systems of lyengar, Virtanen, and Yoshikawa using the decoder system of Walker for the purpose of being able to play back the audio stream (Column 3 lines 20-26, Walker).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et al. (U.S. 6049765) in view of Virtanen (U.S. 6035179) further in view of Yoshikawa (U.S. 5241535) further in view of Auyeung et al. (U.S. 5486863) further in view of an Examiner's Official Notice.

Regarding claim 22, depending on claim 19, Yoshikawa teaches a variable size packet transmitter (Column 8 lines 66-67 and Column 9 lines 1-20).

Iyengar, Virtanen, and Yoshikawa fail to teach a packet transmitter comprises a microprocessor to encode a video difference in a fixed-size packet.

In an analogous art Auyeung teaches a transmitter comprises a microprocessor to encode a video difference (Column 2 lines 55-60, Column 3 lines 41-44, and Column 3 lines 58-60).

At the time the invention was made it would have been obvious for one skilled in the art to modify the combined systems of Iyengar, Virtanen, and Yoshikawa using the video difference system of Auyeung for the purpose of reducing the bandwidth required to transmit the video signal.

Iyengar, Virtanen, and Yoshikawa, and Auyeung fail to teach the system of claim 19, wherein said packet transmitter encodes video in a fixed-size packet.

The examiner takes official notice that is well known for packets to be a fixed size of 188 bytes because of transport streams used to carry the packets therefore it would have been obvious for one skilled in the art to modify the combined systems of Iyengar,

Virtanen, and Yoshikawa, and Auyeung for the purpose of using fixed size packets for motion or still image to conform to motion transport protocols.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. Wilder whose telephone number is 571-272-2826. The examiner can normally be reached on 8 AM - 4PM Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571)272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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